GOLDEN



NUGGET



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PRESIDENT'S MESSAGE

Greetings Fellow Rockhounds,

I would like to thank fellow geologist West White for presenting at our last club meeting about his work with Rare Earth Minerals in Utah, and how critical it is for future development. I found it very informative without getting too technical for those of you who are not geologists. I would like to thank our program coordinator Clare Weil for lining us up a fine group of speakers this year.



Coming up this fall is the Gem Show Season here in Alabama. The Birmingham Club sponsors their annual gem show Labor Day Week in the Irondale Civic Center, the former Shriners temple there. The Huntsville Club is up next with their annual gem show the weekend of October 13th-15th, 2023. Panama City Beach Gem Club also has their annual gem show the same weekend if you would rather go to the beach than

also has their annual gem show the same weekend if you would rather go to the beach than Huntsville. The Mobile Gem Club hosts their annual gem show Thanksgiving Weekend, November 24-26. And finally, the best and biggest gem show in Alabama is right here in Montgomery at Garrett Coliseum on December 1-2, 2023. It's never too early to start planning your visit to our local gem show. And as you will hear me say many times over the next few months: **We need every club member's help in putting on this show.** We need everyone to help as our show continues to grow and get better every year.

Our Gem Show is now sold out of floor space and we cannot accept anymore dealers. We are going to have about 1/3 new dealers at this show so there will be new people to meet, new friends to make, new merchandise to see and purchase.

On September 30, 2023 our club will host the Dixie Mineral Council's October Field Trip at club member Mel Barkley's cabin on the banks of the Uphapee Creek. This has been a traditional summer collecting field trip for our club for many years, and we all appreciate the Barkley family for allowing the club to come collect for all these years. We are expecting up to 50 visitors to the field trip this year from all over the southeast USA, along with several officers from the Southeast Federation of Mineralogical Societies. As traditions go, we will be serving hot dogs, chips, and drinks afterwards for all those attending. We will be sending out an announcement in the next couple of weeks to get a headcount of our club members who want to attend. We can use all the help we can to help cook hotdogs, guide people where to park, help them at the creek, and to get them going and on their way home afterwards. We will see you then.

Don't forget to contact Sabrina Hammond and order your club T-shirt!

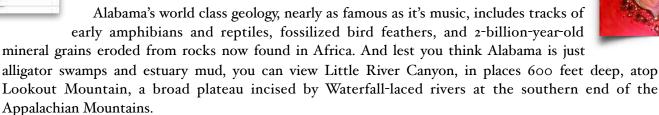
We will have our **regular club meeting on September 19, 2023** at the Crump Community Center for our regularly scheduled meeting on the third Tuesday of the month. Graciously, the Crump Center has allowed us to start using the TV system in the meeting room again. Thank you, Clare Weil for calling the right people there. Chris Rutherford, President chris-rutherford@sanderslead.com



Program Director

Mark & Laura Steltenpohl will be presenting:

"Discover Alabama's Geology"

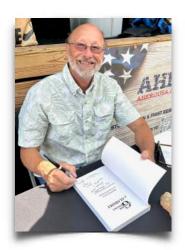


The *Roadside Geology of Alabama* published by Mountain Press, Missoula, MT, tells the story of the ancient, sometimes violent forces that produced Alabama's present-day landscape of rugged mountains, sheer river bluffs, rolling plains of fertile farmland, and beautiful beaches. The authors intertwine the geology with cultural stories, legends, and history to paint an enjoyable picture of how Alabama and its rocks came to be. For example, Tannehill Ironworks and iron mines in Red Mountain Park and Ruffner Mountain Nature Preserve document Birmingham's industrial birth as the source of iron for the Confederacy. Buildings at Cheaha State Park in the Talladega Mountains were constructed by the Civilian Conservation Corps using blocks of locally quarried Cheaha Quartzite. With this book as your guide, find caverns in fossil-rich limestone, shark teeth in the shifting sands of the Gulf Coast, and rocky outcrops in Muscle Shoals along the banks of the Tennessee River, known to Native Americans as the "singing river."

The author's purpose for writing this book was to contribute to the overall understanding of Alabama's geology, with no intentions of financial gain. They are donating royalties and proceeds from book sales to the Mark and Laura Steltenpohl Endowed Scholarship at Auburn University to support undergraduate education in geology.

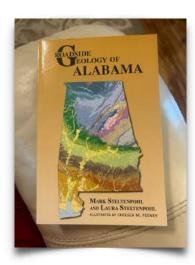
Mark Steltenpohl is an emeritus professor at Auburn University, where he taught for 32 years. He received his doctorate from the University of North Carolina-Chapel Hill, and worked as a field geologist for 3 years at the Geological Survey of Alabama.

Laura Steltenpohl taught science for 20 years at Auburn High School. She earned her MA in secondary science from the University of Alabama after getting degrees in geology at Vanderbilt University (BS) and the University of North Carolina-Chapel Hill (MS).



Author Mark Steltenpohl

Books will be available for \$28





Secretary's August Minutes

The meeting was called to order by president Chris Rutherford. Our only guest was geologist and presenter Wes White.

Magnolia and Claire just returned from William Holland and will give an update on their visit at a later date.

New member Jessica Galloway said she was interested in heading up the Jr. Rockhound program and would speak to Magnolia about the specifics.

The July minutes were approved as published in the newsletter and Iris gave the treasurer's report. She also mentioned the club sponsored exhibit at the upcoming fair. Information on this was in July newsletter page 5.

There was a mail in membership from Derek Pysher and it was approved in absentia.

Club logo t-shirts and sweatshirts are available for order and Sabrina passed around an order form. She will have them next meeting.

The club is sponsoring the DMC event at Mel Barkley's with a limit of 50 excluding club members. Information is available on the website.

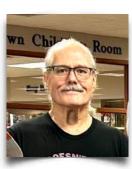
Gary said the Indian artifact show in Ozark was August 26th and well worth the trip. Other future gem and mineral shows locally are in Irondale, Huntsville, and Mobile. Information is available online.

Chris had a flyer from a meteorite identification outfit and would get the details in the next newsletter. The vendor list for December show is almost complete and looks to be at capacity.

Program chair Claire Weil described her chance meeting geologist Wes White and introduced him. Wes is owner of Cornerstone Geological Services and is presently prospecting heavy sand near Bonneville UT for rare earth elements (REE). REEs are among a group of elements identified as essential to the economy and national security. While not necessarily rare, these elements generally occur in low concentrations and are not found in ore bodies. Mt Pass, CA is the only active area in the US and we are almost 100% reliant on foreign sources. China currently is the major source for production and processing. The material Wes is investigating has eroded from the massive Ibapah granite extrusion that formed Deep Creek Mt. As the material washed down into a shallow sea, the heavy metal sands were naturally concentrated in multiple beds and benches. By using magnetometer searches for magnetite and scintillometric analysis for thorium in monazite he has been able to map areas of interest. These sands are much easier and more environmentally friendly to process than hard rock mining, and have the potential to provide a much needed resource. Wes answered questions after the presentation and the meeting was adjourned.

Secretary, David Sherrod







August Program

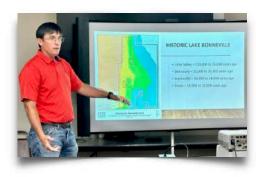
Geologist Wes White discussing Rare Earth Elements and minerals he finds in Utah.



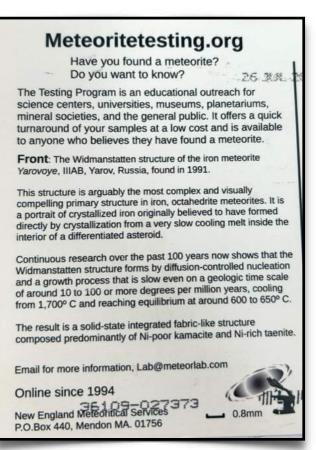














Mineral of the Month

Turquoise: Kingman Turquoise

by Magnolia

The Turquoise Group has several minerals in its series. Each of these minerals can be similar to one another in chemical formula, but they are not the same mineral, one element can replace another, making a different chemistry.

Turquoise is a secondary formation that is deposited into existing spaces of open pockets or crevices within a hillside. The various recipes necessary to create turquoise is a complex composition of copper, aluminum, phosphates, water and oftentimes other

available intrusive substances. The acidic water indiscriminately collects all available substances as it flows downward; it dissipates and evaporates depositing the new chemistry into existing seams, cracks, and open spaces within the hillside.

Turquoise is an opaque mineral that occurs in beautiful shades of blue, bluish green, green, and yellowish green. It has been treasured as aa gemstone for thousands of years. Isolated from one another, the ancient people of Africa, Asia, South America and North America independently made turquoise one of their preferred materials for producing gemstones, inlay, and small sculptures.

Chemically, turquoise is a hydrous phosphate of copper and aluminum (CuAl6(PO₄)₄(OH)8 4H₂o). Its only important use is in the manufacture of jewelry and ornamental objects.

Turquoise specific gravity ranges from about 2.6 to 2.8, and the refractive indexes range from 1.61 on the low end, to 1.62 in the middle, and 1.65 on the high side of the scale. Turquoise is almost always opaque, but rare translucent stones are known to exist.

However, in that use it is extremely popular - so popular that the English language uses the word "turquoise" as the name of a slightly greenish blue color that is typical for high-quality turquoise. Very few minerals have a color that is so well known, so characteristic, and so impressive that the name of the mineral becomes so commonly used. Only three other minerals - gold, silver, and copper - have a color that is used more often in common language than turquoise.

Most of the turquoise production in the United States has been located in the arid southwest, and most of that production has been in or around deposits copper. Arizona, New Mexico, and Nevada ha held the position of the leading turquoise-producing state. New Mexico held that position until the 1920s, Nevada held the position until the 1980s, and Arizona is currently the leading state.

Most of the turquoise mined in the United States is a byproduct of copper production. The large

open-pit copper mines excavate down through the shallow rock units where the turquoise is formed. When turquoise is encountered, the quantity and quality of the material is assessed, and, only if warranted, will a temporary effort be made to recover the gem material. If the value of the turquoise is worth disrupting a billion dollar mining operation, it will be mined. The mining could be done by copper company employees, but the job often goes to outside miners who come to the mine at a moment's notice, quickly recover the turquoise, and get out of the way!

Physical Properties of Turquoise
Chemical
Classification

Sky blue (the most desirable as a gen
blue, blush preen, green, yellowish i
often with brown, grey, or black mair
spider-webbing or background co
Streak

Blush while to greenish while

Luster

Waxy to subvitreous. Dull or chalky
weathered.

Diaphaneity

Cleavage

Perfect, but rarely soen because of the
figrain size of most specimens.

Moha

5 to 6 (often lower because of prote
hardness
Specific
Gravity

Cleavage

Cyndrable because of poros
other minerals included as motif

Diapnostic
Chemical
Chemical
Composition

CulAg(PO4)a(OH)g*4H₂O

The earliest record of turquoise being used in jewelry or in ornaments is from Egypt. There, turquoise has been found in royal burials over 6000 years old. About 4000 years ago, miners in Persia produced a blue variety of turquoise with a "sky blue" or "robin's-egg blue" color. This material was very popular and traded through Asia and into Europe. This is the source of the term "Persian Blue" color.



September 2023



In North America the earliest known use of turquoise was in the Chaco Canyon area of New Mexico, where the gem was used over 2000 years ago.

Ancient artists produced beads, pendants, inlay work, and small sculptures.

Rough turquoise and turquoise objects were held in high regard by Native Americans and were traded widely. This spread North American

turquoise across the southwest and into South America. These early Native American jewelry designs were simple, and the turquoise was not set in metal findings.

In the late 1800s, Native American artists began using coin silver to make jewelry. This work evolved into the turquoise and sterling silver style of Native American jewelry that is popular today.



The demand for turquoise and turquoise jewelry rises and falls over time. In 1912, turquoise was named as one of the original modern birthstones for the month of December. This gave the gem a small boost in popularity which continues to the present.

In the United States there was a surge in turquoise demand that began in the 1970s and declined in the 1980s. Demand for turquoise jewelry is always highest in the southwestern states where turquoise mining and Native American artists make turquoise a distinctive part of local culture.

The Kingman turquoise mine, operated by the Colbaugh family in Arizona, is the last remaining commercially producing mine in the United States. Kingman Turquoise is found in the Mineral Park mining district just a stone's throw north of

Kingman, Arizona. These are rough desert mountains that provide the serene scenery on your drive from Kingman to Las Vegas, Nevada.

Evidence suggests turquoise was mined in the surrounding areas dating as far back as 600 AD. Tools like stone hammers were found in the ancient trenches and tunnels running through the hills in 1962.

Colbaugh Processing operates the mine and specializes in stabilized turquoise, whereby epoxy is infused into the stone which deepens the color and makes the chalky material suitable for cutting and polishing. Their secret process is heavily used to treat a variety of the medium to low grade turquoise produced at Kingman and other mines in the US and abroad.

Much of the turquoise has a white matrix that is often dyed black for better contrast. The quality natural Kingman turquoise produced at this mine is generally medium blue with a "water web" matrix that easily distinguishes it from other turquoise. The best turquoise is a lovely blue with a black web matrix. The Kingman mine also produces a variety of turquoise ranging from pale green to blue with red, brown or yellow matrix.

Leonard Hardy operated the mine in the 1970s and at that time Kingman was producing almost half of the world's supply of turquoise. Over 80,000 pounds were produced in 1973 alone, according to estimate from Leonard Hardy. So many thousands of pounds, both treated and natural, have been produced at the Kingman mine over the years that any time a turquoise is not easily identified or lacks provenance, there is a good chance it is Kingman.

Today, even the quality natural turquoise from Kingman has become rare in the wake of rising demand for good quality American turquoise.





Jr Rockhound Representative

Hi there, MGMS family. My name is Jessica Galloway. My husband Donovan Galloway and daughter Khloè Gazar have recently joined Montgomery Gem and Mineral Society.

I initially fell in love with Tanzanite (only mined in Tanzania) and started collecting jewelry pieces featuring the

gem. Over time, I started looking into loose and raw tanzanite. While looking for those, I started coming across other gems such as emerald, opal, peridot, and alexandrite, etc.. Naturally, I was proud of my (at the time) small collection, so I decided to show it to my dad, Michael Roberts of the Huntsville Gem and Mineral Society.



After my show and tell session with my dad, he talked about growing up and gold panning in California and the collection he had growing up. He also had some pieces left to him from his parents. So, you could say that having a fascination with minerals and gems runs in the family. Afterward, we started to bond over the mining of rocks, the first trip being Hog Mine in LaGrange, Ga. Over the last three years, it has become our summer's end vacation to head into the Mountains of North Carolina and go mining.

I'm interested in being our Jr Rockhound Rep. because I feel that it's important to encourage and educate our youth about the world around them. I also feel that it's important for our junior members to be contributors to the club. If we don't take advantage of this opportunity to involve our juniors and make it fun for them now, they may lose interest, and then we have failed them as a club.

My goal for the Jr Rockhounds is to grow youth participation by implementing programs from Future Rockhounds of America, which is sponsored by the American Federation of Mineralogical Societies. We will be earning badges, completing hands-on educational activities, and attending field trips. As a club member, I will need your help to make this program successful. I will need volunteers to give small presentations, assist with projects, and donate materials to make this work.

Jessica







I will respect both private and public property and will do no collecting on privately owned land without the owner's permission.

I will keep informed on all laws, regulations of rules governing collecting on public lands and will observe them.

I will to the best of my ability, ascertain the boundary lines of property on which I plan to collect.

I will use no firearms or blasting material in collecting areas.

I will cause no willful damage to property of any kind - fences, signs, buildings.

I will leave all gates as found.

I will build fires in designated or safe places only and will be certain they are completely extinguished before leaving the area.

I will discard no burning material - matches, cigarettes, etc.

I will fill all excavation holes which may be dangerous to livestock.

I will not contaminate wells, creeks or other water supply.

I will cause no willful damage to collecting material and will take home only what I can reasonably use.

I will practice conservation and undertake to utilize fully and well the materials I have collected and will recycle my surplus for the pleasure and benefit of others.

I will support the rockhound project H.E.L.P. (Help Eliminate Litter Please) and will leave all collecting areas devoid of litter, regardless of how found.

I will cooperate with field trip leaders and those in designated authority in all collecting areas.

I will report to my club or Federation officers, Bureau of Land management or other authorities, any deposit of petrified wood or other materials on public lands which should be protected for the enjoyment of future generations for public educational and scientific purposes.

I will appreciate and protect our heritage of natural resources.

I will observe the "Golden Rule", will use "Good Outdoor Manners" and will at all times conduct myself in a manner which will add to the stature and Public "Image" of Rockhounds everywhere



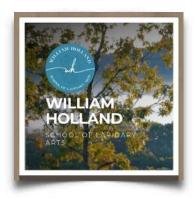
Wire Wrapping I at William Holland

I had a fabulous time taking this class with Judi Wild, my teacher! I made friends for a lifetime, and learned so many new things! All we use is our hands, tools, and wire! No heat, fire or electricity needed.

I actually wrapped my very first cabochon on my SECOND day! I couldn't believe it!

This was a great class for someone like me, who is a rockhound, and wants to learn an easy way to wear your creek finds!

Magnolia





Judi Wild



My First Cab!



My 2nd cab!













Check out classes offered at William Holland! Look over the class schedule on https://www.sfmsworkshops.org/william-holland-classes



Don't forget to check our our Facebook page and Website!







OCTOBER 6-15

DONT FORGET TO ENTER YOUR PRIZE ROCK/GEM IN THE FAIR!

GEMS & MINERALS ADULT DEPARTMENT A4 Sponsored by: MONTGOMERY GEM & MINERAL SOCIETY RIBBONS AWARDED BY CLASS: FIRST, SECOND, AND THIRD "BEST OF FAIR" WINNER: RIBBON & \$100 RULES The workmanship of the item(s) entered must be that of the Exhibitor. Exhibitors shall not enter items that were purchased from another in their finished form. · Fossils, Geodes and Mineral Specimens must have been found/discovered by the exhibitor. · Exhibitors may enter one (1) item in each class. All entries must contain a 3x5 card identifying the item/specimen and materials used. . Entries will be accepted at the Creative Living Center on the following MONDAY, SEPTEMBER 2518 9:00AM - 4:00PM TUESDAY, SEPTEMBER 26⁷¹⁰ 9:00 Am - 4:00 PM WENNESDAY, SEPTEMBER 27⁷¹⁰ 9:00 AM - 4:00 PM THURSDAY, SEPTEMBER 28⁷¹⁰ 9:00 AM - 1:00 PM Class 1. Beading (plastic or acrylic beads not allowed) Mineral Specimen Wire Wrapped Jewelry 2. Cabochon 3. Faceted Stone 8. Items not Listed 5. Geodes JUDGING CRITERIA Labeling & Appearance - 20% Quality of Workmanship - 40% Quality of Stone/Sample - 40%



BOARD MEMBERS

President: Chris Rutherford 334.372.2507 <u>president@mgms.club</u>

First VP/Program Chair: Clare Weil 334.221.5211 clarecweil@gmail.com

Second VP/Field Trips: (open)

Secretary: David Sherrod 334.201.4460 dsher355@att.net

Treasurer: Iris McGeHee 334.262.2197 irismcgehee2433@charter.net

Newsletter Editor: Magnolia Brown 334.300.2501 amandamagnoliabrown@yahoo.com

Webmaster: Frankie Boothman 334.590.1222 webmaster@mgms.club

Director/Shop POC: Leslie Amato 334.324.7997 lgmato@yahoo.com

Jr Rockhound Rep: Jessica Galloway 205.362.9319 jessica.l.galloway@outloook.com

Gem Mineral/Jewelry Show:

Director: Frankie Boothman 334.590.1222 spacetechdude@gmail.com
Contact Chair: Chris Rutherford 334.372.2507 gemshow@mgms.club
Treasurer: Violet Jones 334.354.8795 violetbjones2013@gmail.com
Publicity: Candace Rutherford 334.467.4050 publicity@mgms.club
Co-Chairs: Sabrina Hammond 334.452.6298 sabrinahammondu@gmail.com

Greg Athey 334.303.2051 gsa11459@gmail.com





We are a member of the Southeast Federation Mineralogical Societies, Inc.





Check out their Facebook page!



We are also a member of the American Federation Mineralogical Societies.







UPCOMING EVENTS

9/1-3/2023 —IRONDALE, AL: Alabama Mineral & Lapidary Society; NEW VENUE! Irondale Civic Center (former Zamora Shrine Temple), 3521 Ratliff Rd., Irondale, AL 35210; Friday & Saturday, 10am-6pm, Sunday 10am-4pm. Adults: \$5; Teens: \$3; 12 & under: FREE. More info:

amlsgemshow@gmail.com; https://www.facebook.com/events/1307348173327314/

10/20-22/2023—KNOXVILLE, TN: The Knoxville Gem & Mineral Society; Rothchild Conference Center, 8807 Kingston Pike, Knoxville, TN 37923, Fri & Sat 10-6, Sun 11-5; The Gem Show is open to the public and has an admission fee of \$8 a day for adults or \$15 for the whole show; children under 12 are admitted free. Websitehttp://www.knoxrocks.org/gem-show/

10/21-22/2023 SAINT LUCIE, FL: St Lucie Rock & Gem Club 46th Annual Club Show, MidFlorida Event Center, 9221 SE Event Center Pl, St. Lucie, FL 34952: Sat. 9-5, Sun. 10-4. Admission \$5. We will be hosting the SFMS Annual Meeting. www.slcrockandgem.org

10/21-22/2023 CHARLESTON, WV: Kanawha Rock & Gem Club, South Charleston Community Center 601 Jefferson Road South Charleston WV 25309. October 21 & 22, 2023 Saturday 10AM—6PM, Sunday 10AM—4PM. Admission \$2, Military & Children under 12 are FREE. https://facebook.com/Kanawha-Rock-and-Gem-Club-222696581100304/

11/18-19/2023 WEST PALM BEACH, FL: Gem & Mineral Society of the Palm Beaches, Expo Center East, South Florida Fairgrounds, 9067 Southern Blvd. West Palm Beach, Fl 33411. The 56th Annual Gem, Mineral, Bead, Jewelry & Fossil Show. November 18-19, 2023. Saturday 9am-6pm, Sunday. 10am-5pm. Adults/Seniors 1 day \$10 or 2 day passes \$15. Children under 12 are FREE. Visit our website for a \$1 OFF Coupon. https://www.gmspb.org

3/1-3/2024 LIVE OAK, FL: Annual Federation Rockhound Roundup; Southeast Federation of Mineralogical Societies; Suwannee River Music Park, 3076 95th Dr. Friday 10-5, Saturday 9-4, Sunday 9-4. FREE. SFMS Member vendors from 7 states: FL, GA, TN, MS, NC, SC, AL. Rough rock, slabs, jewelry, cabs, minerals, fossils and more. Contact Jerri Heer, 9016 122nd Ave, Tampa, FL, 33637. (419) 344-9999. Email: jheerx6@aol.com. website: southeastfed.org



Do you have ideas for our newsletter?

Do you have suggestions as to what YOU would like to see in our newsletter?

Then email me!

amandamagnoliabrown@yahoo.com